

## IN THE ABSTRACT

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### ABSTRACT:

d A quadrature coupled controlled oscillator comprising a first and a second circuit ~~modules~~ module, each of the circuit modules (100 and 100') comprising an astable multivibrator circuit (103), ~~the~~. The first circuit module ~~(100)~~ is being coupled with the second circuit module ~~(100')~~ and the second circuit module ~~(100')~~ being is cross coupled with the first circuit module ~~(100)~~, each. Each of the circuit modules (100 and 100') ~~comprising~~ comprises a first and a second Voltage Controlled Current Source (101) (VCCS).—In each of the circuit modules ~~(100 and 100')~~, each ~~of the~~ VCCS is coupled ~~with~~ to a phase shifter (102) for shifting the phase of a current (110) supplied by the VCCS ~~(101)~~ to a resonator (104) ~~comprised~~ included in that circuit module.—A communication arrangement (300) for communicating via a bi-directional communication channel (304), ~~comprising~~ comprises an oscillator (303) as ~~elaimed in one of the previous claims (QVCO)~~ described above for generating a ~~periodical~~ periodic signal, ~~a~~. A receiving module (301) ~~for generating~~ generates an output signal from the ~~periodical~~ periodic signal and a receiving signal received from the channel (304), ~~.~~ The arrangement further ~~comprising~~ comprises an emission module (302) for generating an emission signal for emitting to the channel from the ~~periodical~~ periodic signal and an input signal.

Fig. 2

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